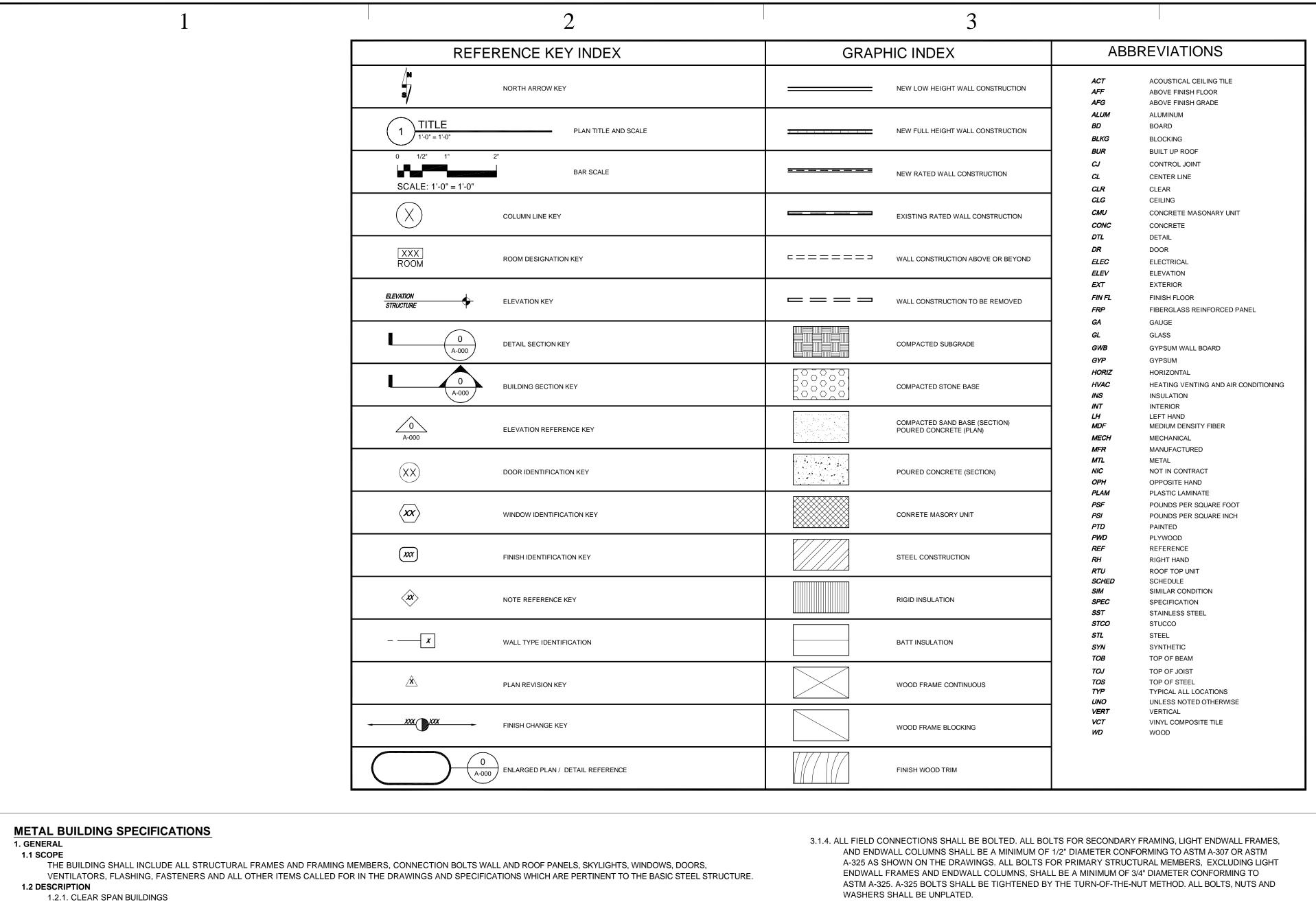


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3.1.5. ALL FRAMING MEMBERS SHALL BE MARKED FOR IDENTIFICATION AND ERECTION.

## 3.2 RIGID FRAMES, LEAN-TO FRAMES, CANOPY BEAMS

ALL MEMBERS SHALL BE MILL SECTIONS OR WELDED BUILT UP "I" SHAPES EITHER CONSTANT DEPTH OR TAPERED. ALL FLANGE-TO-WEB WELDING FOR BUILT-UP SECTIONS SHALL BE DONE BY A SUBMERGED ARC AUTOMATIC WELDING PROCESS.

## 3.3 PURLINS AND GIRTS

## PURLINS AND GIRLS SHALL BE ROLL-FORMED "Z" SECTIONS OF A DEPTH AND GAGE AS NEEDED TO CONFORM TO THE PARTICULAR DESIGN CRITERIA

3.4 EAVE STRUTS

## EAVE STRUTS SHALL BE 8 INCH DEEP BY 5 INCH BOTTOM FLANGE UNSYMMETRICAL "C" SECTIONS USED TO

PROPERLY AND ADEQUATELY RECEIVE BOTH THE ROOF PANELS AND WALL PANELS AND TO SERVE AS A COMPRESSION MEMBER TO TRANSFER ENDWALL WIND LOADS. 3.5 WIND BRACING WIND BRACING SHALL CONSIST OF CABLE IN BOTH THE ROOF AND SIDEWALLS. THE SIZE AND NUMBER OF CABLES REQUIRED SHALL DEPEND ON THE AMOUNT OF WIND

LOAD TO BE TRANSFERRED TO THE FOUNDATION. WIND BRACING MAY ALSO BE PROVIDED BY THE DIAPHRAGM ACTION OF THE ROOF AND/OR WALL PANELS. 3.6 FLANGE BRACING

#### THE COMPRESSION FLANGE SHALL BE LATERALLY SUPPORTED SO THAT THE ALLOWABLE COMPRESSIVE STRESS IS NOT EXCEEDED. 3.7 BASE ATTACHMENT

THE BOTTOM OFF THE WALL PANELS SHALL BE FASTENED TO A BASE ANGLE LOCATED ON THE FLOOR SLAB.

## 3.8 PAINTING

ALL STRUCTURAL FRAMING MEMBERS, WHICH ARE NOT GALVANIZED OR OTHERWISE COATED, SHALL BE CLEANED AND GIVEN ONE SHOP COAT OF PRIMER. THERE SHALL BE NO FINISHED PAINT APPLICATIONS. THE PRIMER SHALL BE FORMULATED TO EQUAL OR EXCEED THE END PERFORMANCE REQUIREMENTS OF FEDERAL SPECIFICATION SSPC15-68T

#### 4. ROOF AND WALL COVERING 4.1 GENERAL

4.4.1. ROOF COVERING SHALL BE 24 GAGE GALVALUME, PAINTED STEEL, RIBBED PANELS

4.4.2. WALL COVERING SHALL BE 24 GAGE GALVALUME, PAINTED STEEL, RIBBED PANELS. 4.2 PANEL MATERIALS

MATERIAL FOR GALVANIZED STEEL PANELS SHALL BE FORMED FROM FLAT COILED SHEET AND SHALL BE GALVANIZED WITH A ZINC COATING. 4.3 PANEL CONFIGURATION

4.3.1. TYPE "PBR" SHALL HAVE 1-1/4" DEEP MAJOR RIBS SPACED 12" ON CENTER. THE FLAT WIDTH BETWEEN MAJOR RIBS SHALL BE STIFFENED BY TWO

MINOR RIBS. EACH PANEL SHALL HAVE A 36" WIDE NET COVERAGE. APPLICATION SHALL BE ACCOMPLISHED WITH THROUGH PANEL FASTENING. "PBR" PANELS SHALL HAVE A MINIMUM TESTED YIELD STRENGTH OF 80,000 PSI. IN ADDITION, THE "PBR" PANEL SHALL HAVE A PURLIN BEARING EDGE.

4.4.1. SHEET METAL SCREWS SHALL BE NO. 14 X 3/4" HEX HEAD, SELF-TAPPING WITH STEEL BACKED NEOPRENE WASHERS, OR NO. 12 X 1-1/4" SELF-DRILLING WITH STEEL

BACKED NEOPRENE WASHERS. THE TYPE OF FASTENER SHALL BE AS REQUIRED BY THE BUILDER.

4.4.2. FINISHES A. STANDARD BUILDINGS SHALL BE FURNISHED WITH CADMIUM PLATED SCREWS.

B. WHEN PANELS ARE COLOR COATED, ALL VISIBLE WALL SCREWS AND METAL WASHERS SHALL BE COLOR COATED TO MATCH.

4.5 SEALER SEALER FOR SIDELAPS, ENDLAPS, AND FLASHING SHALL BE 1/2" WIDE BY 3/32" THICK, DARK GRAY PRESSURE SENSITIVE TAPE. SERVICE TEMPERATURE RANGE SHALL

BE FROM -60° F TO +300° F. 4.6 FLASHING, CLOSURES, AND TRIM

4.6.1. FLASHING AND/OR TRIM SHALL BE FURNISHED AT THE RAKE, CORNERS, AND EAVES, AT FRAMED OPENINGS, AND WHEREVER NECESSARY TO PROVIDE FINISHED

4.6.2. A DIE-FORMED RIDGE CAP SHALL BE FORMED TO MATCH ROOF SLOPE AND SHALL BE THE SAME CONFIGURATION AS THE ROOF PANELS. 4.6.3. SOLID CELL, PREFORMED, RUBBER OR NEOPRENE CLOSURES MATCHING THE PROFILE OF THE WALL AND ROOF PANELS SHALL BE INSTALLED ALONG THE EAVE A ND/OR RAKE WHERE REQUIRED.

4.7 COLOR FINISH COLOR COATED ROOF AND WALL PANELS, FLASHING AND TRIMS SHALL BE SELECTED TO MATCH ADJACENT EXISTING BUILDING FROM THE MANUFACTURER'S STANDARD SELECTION. COLOR COATED PANELS SHALL BE AVAILABLE WITH THE SUPPLIER'S OR MANUFACTURER'S STANDARD WRITTEN GUARANTEE COVERING CHALKING, FADING, BLISTERING, CHECKING, AND PEELING. COLOR COATING SPECIFICATIONS SHALL BE AVAILABLE UPON REQUEST.

## State of Utah Department of Administrative Services



Division of Facilities Construction & Management 4110 State Office Building Salt Lake City, Utah 84114 Phone: (801) 538 - 3018 Fax: (801) 538 - 3267

Internet: http://dfcm.utah.gov



845 SOUTH MAIN, BOUNTIFUL, UTAH 84010 801-298-5777 FAX 801-298-1677

BUILDING NAME:

PROPERTY # 10489 MAINTENANCE BLDG **UTAH LAKE STATE PARK** 4400 W. CENTER STREET PROVO, UTAH

PROJECT TITLE:

PROVO, UTAH **UTAH LAKE STATE PARK** MAINTENANCE BLDG

5. ACCESSORIES

5.1 HOLLOW METAL SWING DOORS IN ALL STANDARD SIZES SHALL BE FURNISHED WITH STANDARD PASSAGE LATCHES, LOCK SETS AND THRESHOLDS.

5.2 SKYLIGHTS SHALL BE 8 OUNCE GLASS FIBER REINFORCED POLYESTER TO MATCH ROOF PANEL TRANSLUCENT PANELS FORMED CONFIGURATION. THESE SHALL BE AVAILABLE IN WHITE STANDARD. 5.4 ROUND VENTILATORS SHALL BE FURNISHED IN 20" DIAMETER WITH DAMPERS. MONOVENTS SHALL BE IN 10' SECTIONS WITH EITHER 9" OR 12" THROAT SIZES WITH OR WITHOUT DAMPERS. BIRD SCREEN SHALL BE

FURNISHED ON BOTH ROUND VENTILATORS AND MONOVENTS. 6. BUILDING ANCHORAGE AND FOUNDATIONS 6.1 ANCHORAGE

GENERAL CONSTRUCTION NOTES

(1) DRAWINGS ARE NOT TO BE SCALED. THESE PLANS ARE INTENDED TO BE DIAGRAMMATIC ONLY. THE

(2) PRIOR TO SUBMITTING A BID, THE CONTRACTOR SHALL VISIT THE JOB SITE AND BECOME FAMILIAR WITH

ALL CONDITIONS AFFECTING THE PROPOSED PROJECT, INCLUDING DEMOLITION, MECHANICAL AND ELECTRICAL

(3) CONTRACTOR SHALL VERIFY ALL FIELD CONDITIONS AND DIMENSIONS ON THE JOB SITE AND CONFIRM

THAT WORK AS INDICATED ON THE CONSTRUCTION DOCUMENTS CAN BE ACCOMPLISHED AS SHOWN BEFORE

(4) NOTIFY ARCHITECT OR ENGINEER OF ANY MAJOR DISCREPANCY REGARDING THE CONTRACT DOCUMENTS

(5) INSTALL ALL EQUIPMENT AND MATERIALS PER MANUFACTURERS RECOMMENDATIONS UNLESS SPECIFICALLY

(6) CONTRACTORS SHALL VISIT JOB SITE TO REVIEW SCOPE OF WORK AND EXISTING SITE CONDITIONS

(7) ALL TELEPHONE/EQUIPMENT LAYOUT, SPECIFICATIONS, PERFORMANCE, INSTALLATION AND THEIR

FINAL LOCATION ARE TO BE APPROVED BY CONSTRUCTION MANAGER. THE CONTRACTOR SHALL BE

LAWFUL ORDERS OF ANY PUBLIC AUTHORITY BEARING ON THE PERFORMANCE OF THE WORK.

75 FEET TRAVEL DISTANCE TO ALL PORTIONS OF THE PROJECT AREA DURING CONSTRUCTION.

WITH COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.

WITH MOST CURRENT EDITION UPS, UMC, AND THE NEC.

ANY DAMAGE THAT MAY OCCUR DURING CONSTRUCTION.

MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK.

(16) VERIFY ALL FINAL EQUIPMENT LOCATIONS WITH OWNERS REPRESENTATIVE.

(17) DIMENSIONS ARE TO FINISH SURFACES UNLESS OTHERWISE NOTED.

MANAGER. CLEAN UP DAILY AT CONSTRUCTION MANAGERS DISCRETION.

RESPONSIBLE FOR COORDINATING THEIR WORK WITH THE WORK AND CLEARANCE REQUIRED BY OTHERS

(8) ALL WORK PERFORMED AND MATERIALS SHALL MEET THE HIGHEST TRADE STANDARDS. AS A MINIMUM

STANDARD, CONFORM WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES HAVING JURISDICTION.

CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND

(9) ELECTRICAL SYSTEMS SHALL BE INSTALLED PER NEC AND IN ACCORDANCE WITH ALL APPLICABLE UTILITY

(10) CONTRACTOR SHALL PROVIDE CONTINUOUS SUPERVISION WHILE ANY SUBCONTRACTORS OR WORKMEN

ARE ON THE JOB SITE AND SHALL SUPERVISE AND DIRECT ALL WORK. CONTRACTOR SHALL BE SOLELY

RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND

(11) PROVIDE A PORTABLE FIRE EXTINGUISHER WITH A RATING OF NOT LESS THAN 2-A OR 2-A10BC WITHIN

(12) ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH INTERNATIONAL BUILDING CODE (IBC) 2003, ALONG

(13) CONTRACTOR SHALL PROTECT ALL EXISTING FINISHES THAT ARE TO REMAIN, CONTRACTOR SHALL REPAIR

(14) SEAL ALL PENETRATIONS THROUGH FIRE RATED AREAS WITH U.L. LISTED OR F.M. APPROVED MATERIALS.

(18) CLEANUP AND SAFETY: KEEP PROJECT AREA CLEAN, HAZARD FREE, AND DISPOSE OF ALL DIRT, DEBRIS,

(19) THE GENERAL CONTRACTOR IS RESPONSIBLE FOR REDLINING THE CONSTRUCTION PLANS TO ILLUSTRATE

THE AS-BUILT CONDITION OF THE SITE. THIS WILL BE DONE AFTER THE SITE HAS BEEN AWARDED THE

RUBBISH AND EQUIPMENT REMOVED AND NOT SPECIFIED AS REMAINING THE PROPERTY OF THE OWNER. LEAVE ROOM CLEAN (PREMISES IN A VACUUM AND BROOM CLEAN CONDITION) FREE FROM PAINT SPOTS. DUST, OR SMUDGES OF ANY NATURE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL SYSTEMS EQUIPMENT IN A CLEAN WORKING ORDER UNTIL ACCEPTANCE OF THE PROJECT BY CONSTRUCTION

(15) DETAILS AND SCHEMATICS ARE TO PROPOSED TO SHOW END RESULT OF THE DESIGN. MINOR

MODIFICATIONS MAY DEEM TO BE NECESSARY TO SUIT JOB CONDITIONS AND DIMENSIONS. SUCH

COMPANY SPECIFICATIONS, LOCAL AND STATE JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE

INCLUDING, BUT NOT LIMITED TO, MECHANICAL SERVICE, ELECTRICAL SERVICE AND OVERALL COORDINATION.

EXISTING CONDITIONS, AND OR DESIGN INTENT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING

WORK INDICATED ON THE DRAWINGS SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT AND

THE CLARIFICATION PRIOR TO PROCEEDING WITH THE WORK OR RELATED WORK IN QUESTION.

OTHERWISE INDICATED, OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.

APPURTENANCES, AND LABOR NECESSARY TO COMPLETE THE WORK.

INSTALLATIONS AND SHALL ADJUST BID ACCORDINGLY.

PROCEEDING.

REGULATIONS.

RELATED TO SAID EQUIPMENT.

THE BUILDING ANCHOR BOLTS AND RELATED ANCHORAGE SHALL BE DESIGNED TO RESIST THE COLUMN REACTIONS RESULTING FROM THE DESIGN LOADS. THE DIAMETER OF THE ANCHOR BOLTS SHALL BE AS SPECIFIED BY THE BUILDING MANUFACTURER. THE ANCHOR BOLTS SHALL BE FURNISHED BY THE CONCRETE CONTRACTOR.

MARK | DATE | DESCRIPTION **ISSUE TYPE: BID SET** 

ISSUE DATE: Aug.21, 2006

DFCM PROJECT NO: 06032510 CAD PROJECT NO: 06-16 CAD DWG FILE DRAWN BY: JRC CHK'D BY: TGS COPYRIGHT: STATE OF UTAH SHEET TITLE

CONSTRUCTION DOCUMENT SUBMITTAL GENERAL INFORMATION

SHEET NUMBER

SHEET 2 OF 9

3.1.3. ALL HOT ROLLED STEEL SHEET, PLATE, AND STRIP SHALL HAVE A MINIMUM TESTED YIELD STRENGTH OF 50,000 PSI WHEN USED AS FLANGE MATERIAL AND WEB MATERIAL ALL STRIP FOR LIGHT GAUGE PURLINS AND GIRTS SHALL BE 57,000 PSI MINIMUM TESTED YIELD STRENGTH. HOT ROLLED MILLED SHAPES SHALL HAVE A MINIMUM TESTED YIELD STRENGTH OF 36,000 PSI UNLESS NOTED OTHERWISE ON THE ERECTION DRAWINGS.

A. PRIMARY STRUCTURAL FRAMING SHALL REFER TO THE TRANSVERSE RIGID FRAMES, LEAN-TO RAFTER BEAMS AND COLUMNS, CANOPY BEAMS, I

B. SECONDARY STRUCTURAL FRAMING SHALL REFER TO PURLINS, GIRTS, EAVE STRUTS, FLANGE BRACING STRUTS, TENSION RODS, CLIPS, ETC.

"RF", BUILDINGS SHALL BE OF THE SINGLE GABLE, RIGID FRAME TYPE. THE PRIMARY TRANSVERSE RIGID FRAMES SHALL BE CLEAR SPAN.

COMPLETE ERECTION DRAWINGS, ANCHOR BOLT SETTING PLANS, FLASHING DETAILS, AND ACCESSORY INSTALLATION DETAILS SHALL BE FURNISHED WITH

2.1.1. ALL STRUCTURAL STEEL SECTIONS AND WELDED PLATE MEMBERS SHALL BE DESIGNED IN ACCORDANCE WITH THE NINTH EDITION OF

BY THE GOVERNING BUILDING CODE UNLESS EXCEPTIONS ARE SPECIFICALLY NOTED EXCLUDING TRIBUTARY LOADING.

1.3.1. THE BUILDING WIDTH AND LENGTH SHALL BE MEASURED FROM THE INSIDE FACE TO INSIDE FACE OF THE WALL COVERING.

THE AISC "SPECIFICATIONS FOR THE DESIGN, FABRICATION, AND ERECTION OF STEEL FOR BUILDINGS".

2.2.1. THE ROOF DEAD LOAD SHALL BE ASSUMED TO BE DISTRIBUTED UNIFORMLY OVER THE ENTIRE ROOF AREA.

TO TRANSFER THOSE LOADS TO THE BUILDING MANUFACTURER'S PRIMARY FRAMING SYSTEM.

INTERMEDIATE SUPPORT COLUMNS AND LONGITUDINAL WIND BRACING.

MOUNTED OR SIMPLY SUPPORTED FLUSH MOUNTED.

A. BAY SPACING AS SPECIFIED.

THE RECOMMENDED ERECTION INSTRUCTIONS.

MANUFACTURERS ASSOCIATION.

ASSOCIATION.

2.3.1. DEAD LOAD + LIVE LOAD (DL+LL)

2.3.2. DEAD LOAD + WIND LOAD (DL+WL)

2.3.3. DEAD LOAD + SNOW LOAD (DL+SL)

2.4 BUILDING MATERIALS BY OTHERS

2.3.4. DEAD LOAD + SEISMIC LOAD (DL+SEIS)

2.3 DESIGN LOAD COMBINATIONS

3.1.2. NOMENCLATURE

3 STRUCTURAL FRAMING

3.1. GENERAL

1.3.3. THE ROOF SLOPE SHALL BE A RISE OF AS SPECIFIED.

1.3.4. THE BAY SPACING BETWEEN FRAME CENTER LINES SHALL BE:

DESIGN OF LIGHT GAGE COLD-FORMED STEEL STRUCTURAL MEMBERS".

LOADS THAT RESULT FROM A SIMPLE SPAN PURLIN OR GIRT SYSTEM

PUBLISHED BY THE METAL BUILDING MANUFACTURERS ASSOCIATION.

3.1.1. ALL FRAMING MEMBERS SHALL BE SHOP FABRICATED FOR BOLTED FIELD ASSEMBLY.

1.3 NOMENCLATURE

2. DESIGN

2.1 GENERAL

"RF STRAIGHT COLUMN" SHALL HAVE STRAIGHT COLUMNS WITH TAPERED RAFTERS SECONDARY GIRT MOUNT SHALL BE EITHER CONTINUOUS BY-PASS

1.3.2. THE BUILDING EAVE HEIGHT SHALL BE MEASURED FROM THE BOTTOM OF THE BASE PLATE OF THE EXTREME FRAME COLUMNS TO THE TOP OF THE EAVE STRUT.

ALL PARTS CLEARLY INDICATED WITH PART MARKS FOR PROPER ASSEMBLY. THOSE ERECTING BUILDING SHALL ASSUME ALL RESPONSIBILITY FOR ANY DEVIATION FROM

2.1.2. ALL LIGHT GAGE COLD FORMED, S TRUCTURAL MEMBERS SHALL BE DESIGNED IN ACCORDANCE WITH THE 1986 EDITION OF THE AISI "SPECIFICATIONS FOR THE

2.2.2. THE APPLICATION OF THE ROOF LIVE LOAD TO ROOF COVERING SECONDARY AND PRIMARY FRAMING SHALL BE IN ACCORDANCE WITH THE MINIMUMS ALLOWED

2.2.3. IN THE DESIGN OF PRIMARY AND SECONDARY MEMBERS, WIND VELOCITY PRESSURE SHALL BE APPLIED AS PRESCRIBED BY THE SPECIFIED BUILDING CODE OR

AS PRESCRIBED BY THE 1986 EDITION OF THE "LOW RISE BUILDING SYSTEMS MANUAL" AS PUBLISHED BY THE METAL BUILDING MANUFACTURERS

MAGNITUDE OF THE LOADS SHALL BE AS RECOMMENDED BY THE "LOW RISE BUILDING SYSTEMS MANUAL" AS PUBLISHED BY THE METAL BUILDING

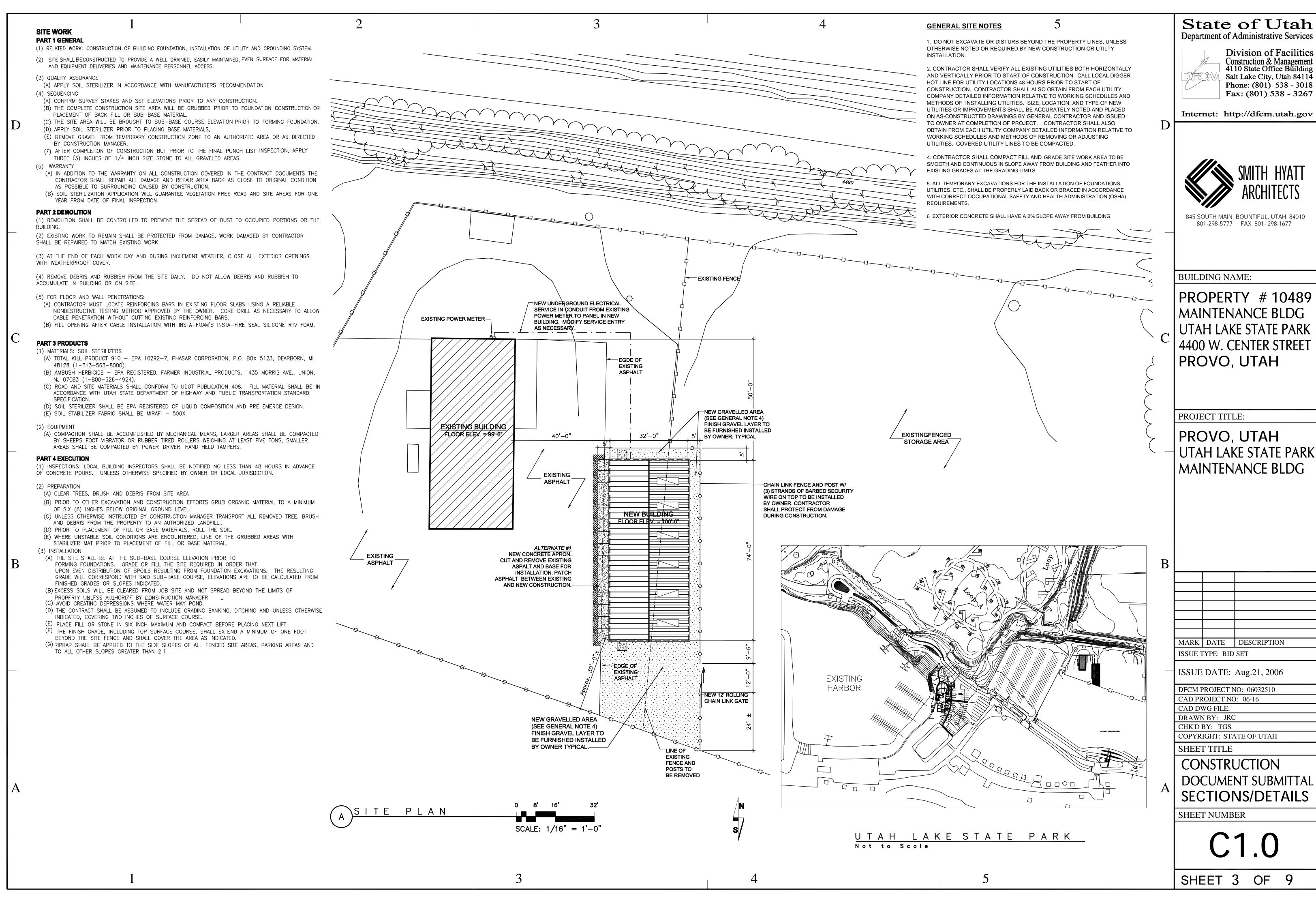
2.2.5. ALL WALL GIRTS AND ROOF PURLINS SHALL BE DESIGNED AS SIMPLE OR CONTINUOUS BEAMS. EACH INTERIOR RIGID FRAME SHALL BE DESIGNED TO CARRY EQUAL

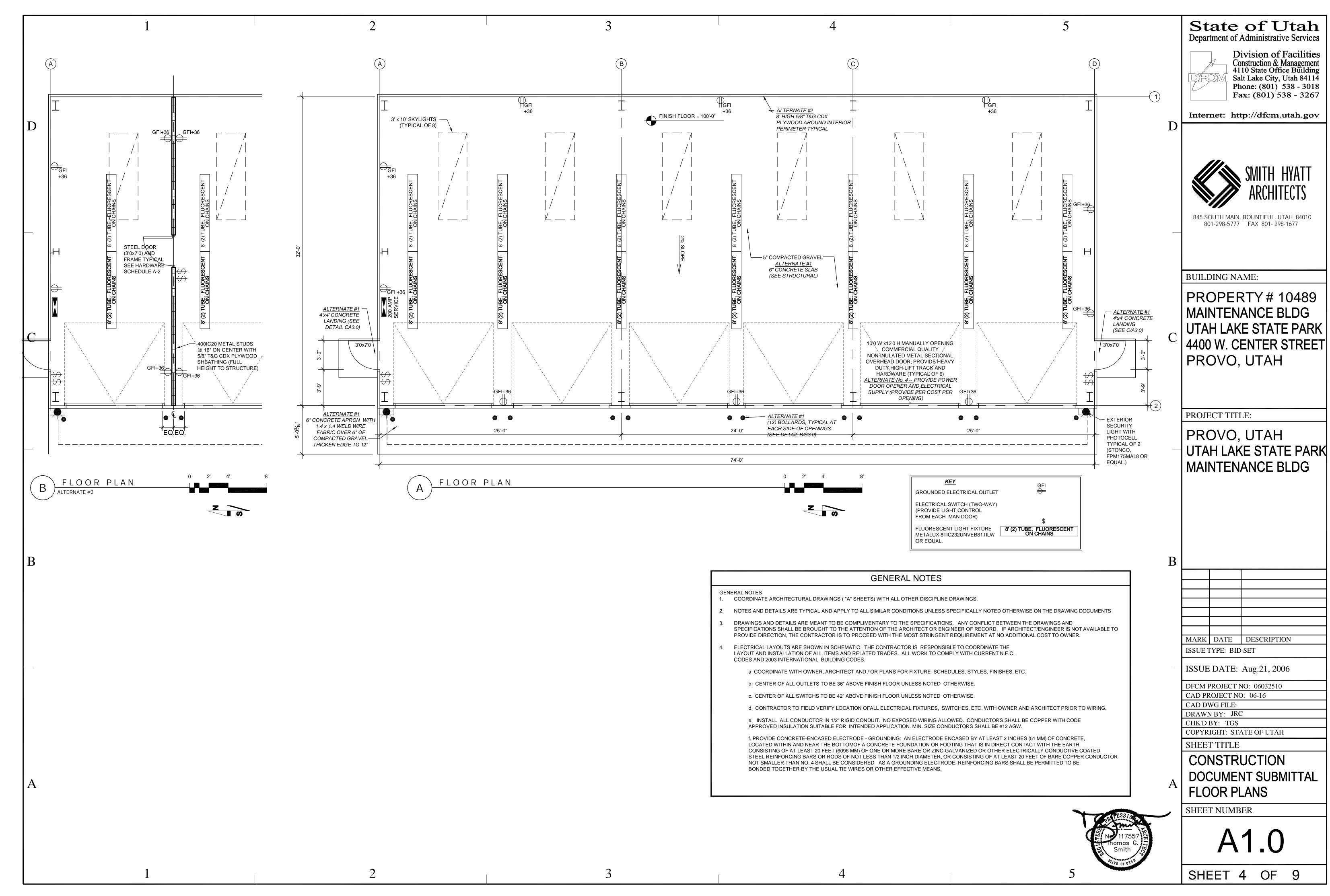
ALL BUILDING MATERIALS NOT PROVIDED BY THE BUILDING MANUFACTURER SHALL BE PROPERLY DESIGNED TO SUSTAIN ALL LOADS IMPOSED ON THEM AND

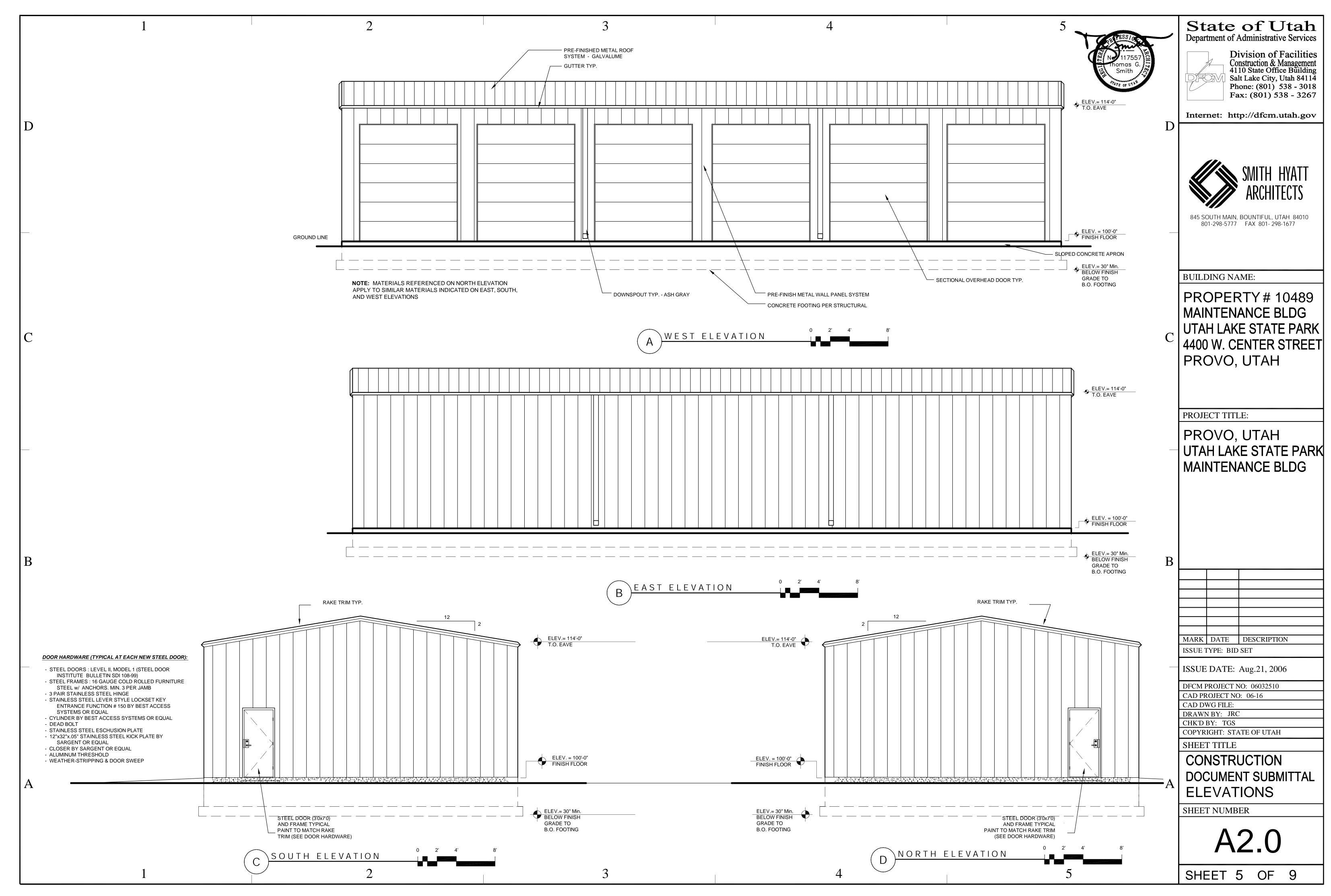
2.2.4. MAGNITUDES SHALL BE AS SPECIFIED BY LOCAL BUILDING CODES OR OTHER GOVERNING BODIES. IN THE ABSENCE OF OTHER SPECIFICATIONS, THE

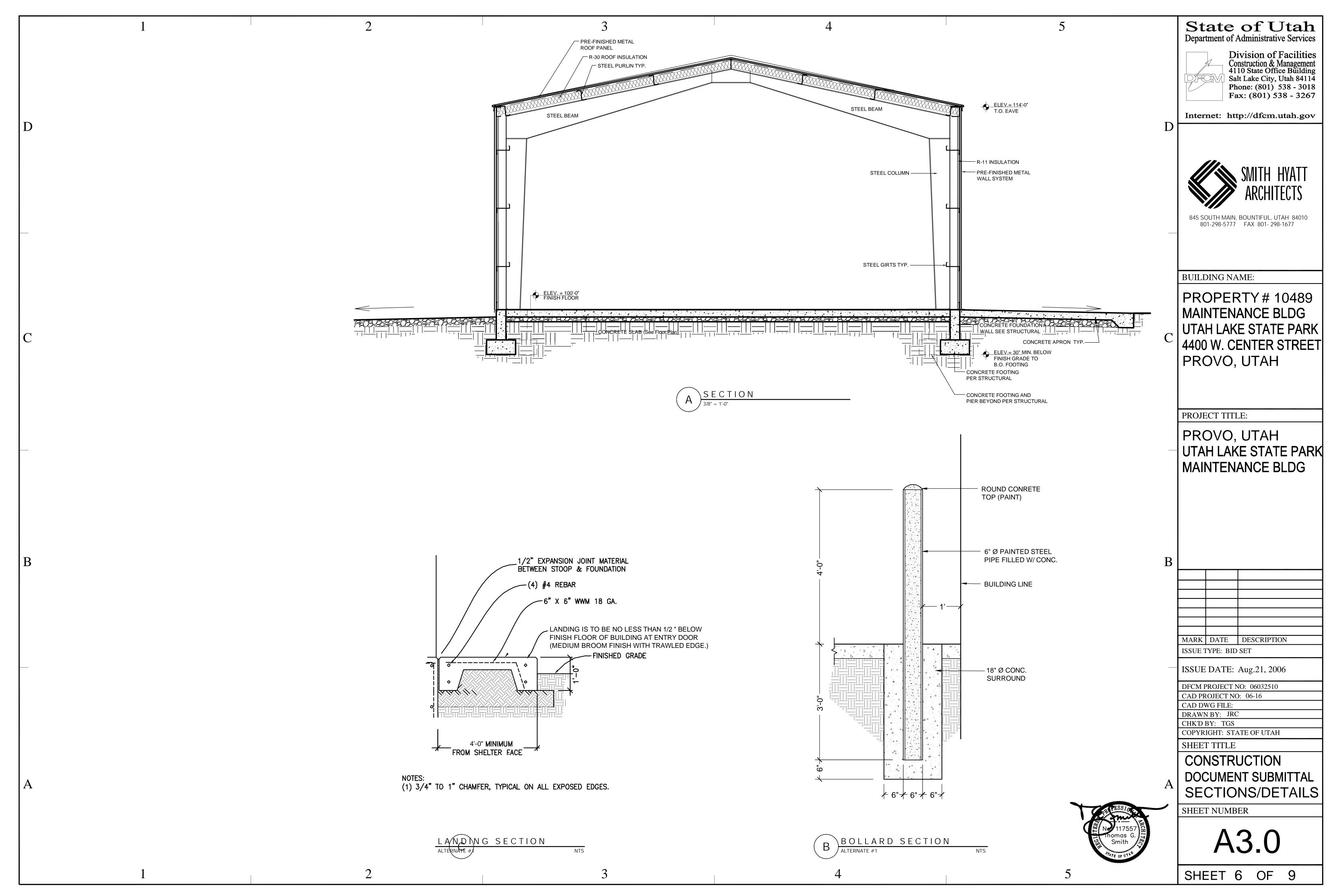
2.3.5. OTHER LOAD COMBINATIONS SHALL BE AS RECOMMENDED BY THE SPECIFIED BUILDING CODE OR BY THE "LOW RISE BUILDING SYSTEMS MANUAL" AS

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1. BUILDING CODE ...... 2003 IBC 2. BUILDING CLASSIFICATION CATEGORY ..... 3. GRAVITY DESIGN:

See building manufacturer (foundation loads to be provided by building manufacturer & plans revised)

4. WIND DESIGN: See building manufacturer

5. SEISMIC DESIGN: See building manufacturer

6. SOILS:

Soil bearing pressure. On structural fill, see soils report ..... 3000 psf

7. ABBREVIATIONS: EOR = Engineer of record. See professional stamp this page.

UNO = Unless noted otherwise

(E) = Existing condition(N) = New construction

#### **GENERAL**

1. THE GENERAL CONTRACTOR SHALL:

A. Be familiar with the contract documents and insure that subcontractors are familiar with their portion of the work. Submit a written request to the EOR for approval before proceeding with any changes.

B. Verifies site conditions and dimensions at the site. If they differ from the contract documents, notify the EOR prior to fabrication/construction of affected elements. Affected details may require redesign.

C. Report to the EOR modifications made to the structure. D. Be responsible for safety and protection on and around the job site and adjacent properties.

2. THE GENERAL CONTRACTOR SHALL COORDINATE:

A. And verify locations, weights and sizes of mechanical units, equipment, etc. prior to the fabrication and erecting of structural supporting elements. Report sizes and locations that differ from those shown on the drawings to the EOR for review. Additional framing maybe

B. Wall openings required for mechanical, etc. which are not shown on the structural drawings with the EOR.

C. Any structural situation not covered by the drawings with the EOR. D. Doors, windows, walls, elevations, slopes, stairs, curbs, drains, recesses, depressions, railings, waterproofing, finishes, chamfers, kerfs, pads, landscape walls, trenches in slabs, etc. with the structural work. E. Inspections, testing, and structural observations as work proceeds. Notify the EOR 48 hours prior to any required structural observations.

3. CONTRACT DOCUMENTS & DRAWINGS:

A. These structural notes complement the specifications and the drawings.

B. Specific details, sections and notes shown on the drawings govern over these general notes and typical details. C. Contract documents take precedence over shop drawings, UNO.

D. Apply typical or similar details, sections and notes to similar situations on the drawings where specific details are not referenced. E. Drawings and details have been prepared to visually represent information provided in scaled form. However, DO NOT scale plans or details for dimensional information.

F. Refer to architectural drawings for dimensions.

4. BUILDING CODE COMPLIANCE: Construction, inspection, materials, testing, and workmanship shall conform to the requirements of the governing

5. CONSTRUCTION SEQUENCE, SHORING, AND BRACING REQUIREMENTS: The general contractor is responsible for the method, means, and sequence of structural erection, UNO. He shall provide adequate temporary shoring or bracing for all structural elements until the entire structural system is completed. Design of shoring and bracing is by others at no additional cost to the owner.

6. OMISSIONS, CONFLICTS & DISCREPANCIES:

A. Bring omissions, conflicts or discrepancies between the elements of the contract documents to the attention of the EOR before proceeding with

B. In case of conflicts or discrepancies, follow the most stringent  ${f D}$  requirements as directed by the EOR.

7. MISCELLANEOUS:

A. During and after construction, builder and/owner shall keep loads on the structure within the limits of this design. See Basis of Design. B. Site observations by ES2's field representative shall neither be construed as inspection nor approval of construction.

A. Make submittals in a timely manner. ES2's review is for general compliance only and is not intended as approval. Contractor is responsible for verifying sizes, dimensions and elevations on submittals as related to the contract documents. B. Submit the following items for review prior to proceeding with the

Concrete material Certifications & mix designs.

Shop Drawings: Reinforcing steel Special loads on the foundation.

C. Allow two weeks for the review of submittals by the EOR. D. Have EOR approved shop drawings & materials on site before

construction of those components begin. E. Substitutions are not allowed unless approved by the EOR. Submit requests for structural substitutions to the EOR.

- 1. CODES AND STANDARDS. Comply with the following Codes: A. ACI 301, "Specifications for Structural Concrete for Buildings". B. ACI 318, "Building Code Requirements for Reinforced Concrete". C. ACI 347, "Recommended Practice for Concrete Form Work".
- 2. MATERIALS shall conform to the following: A. Cement; ASTM C150, Type I, Portland Cement.
- B. Hard rock aggregates: ASTM C33
- Lightweight aggregates: ASTM C330 C. Water shall be potable. D. Air entrainment:
- ASTM C618 E. Fly ash: F. Calcium chloride SHALL NOT be used.
- 3. MIX DESIGNS:
  - A. Place only one type of concrete at any given time.
  - B. The maximum slump shall be 4" w/o plasticizer added.
  - C. Use pea gravel and/or plasticizer in congested areas.
  - D. Limit fly ash to 20% of the total cement. E. Concrete mixes shall conform to the following:

	TYPE OF	28 DAY	MAX.	MAX.	MAX.	AIR	
	CONCRETE	STRENGTH	W/C	DRY	Y AGGREGATE		
	MEMBER			WEIGHT	SIZE		
		(psi)	(ratio)	(pcf)	(inches)	(응)	
	Footings:	3000	0.50	150	3/4	$3 \pm 1$	
	Foundation	walls and	grade bea	ams:			
		3000	0.50	150	3/4	$3 \pm 1$	
Slabs on grade:							
	Interior	4000	0.45	150	1.5*	0 to	2
	Exterior	4000	0.47	150	1.5*	6 ±1	

\*Well-graded Aggregates required (1.5"=> course >3/8", medium, and fines <#8) Follow ACI 302 for sand gradation.</pre>

4. CONSTRUCTION:

A. Mechanically vibrate concrete during placement.

B. Prior to placing concrete, check with trades to insure proper placement of openings, block outs, sleeves, curbs, conduits, bolts, inserts, embeds, dowels, etc. Place anchor bolts and dowels prior to casting concrete, UNO.

C. Form construction joints and bulkheads with a key way. Intentionally roughen contact surfaces (new or existing) at construction joints prior to casting adjacent pours, UNO.

D. Add additional reinforcing too sides of floor and wall opening, equivalent to the bars cut by the opening with half to each side of the opening or (2) #5 bars, whichever is greater, UNO. Bars parallel to the principal reinforcing shall run full length of the span. End bars in the other direction with a standard hook. Add (2)  $\#5 \times 5'-0"$  diagonal bars at every corner.

E. DO NOT allow penetrations through any beam, joist, column, pier, footing, or jamb without the EOR's approval. Otherwise, re-rout the penetration.

A. Bear footings on properly prepared materials.

B. Center footings on the wall or column above, UNO.

C. Bear exterior footings below the effects of frost. See Basis of D. Provide 2x4 beveled key in continuous wall footings.

E. Stagger footing construction joints from wall construction joints above by at least 6 feet.

F. Provide corner bars in continuous footings at corners and intersections. G. Add (2) #6 or (3) #5 lengthwise top bars in addition to footing

schedule reinforcement at continuous footings without concrete foundation walls directly above (door openings, etc.). H. DO NOT allow penetrations through any concrete footing. At

utilities, step the footing down below the conflict and add a concrete wall, pier or column that extends to the footing. Consult with the EOR. I. Backfill bearing surfaces that are undermined during construction with a lean concrete mix (1000 psi min.).

6. SLABS ON GRADE (SOG):

A. Minimum Interior slabs on grade requirements:

8 inches thickness.

4 inch layer of free-draining gravel base.

#5 bars at 18" o.c. both ways, UNO. Chair rebar for proper placement.

B. Place large areas of interior slabs-on-grade in strips not to exceed 120 feet in length nor 30 feet in width. Subdivide by construction or contraction (control) joints into roughly squares whose sides DO NOT exceed 15 feet in either direction.

C. See Architectural for exterior slabs on grade, UNO.

7. WALLS: A. Place vertical reinforcing in the center of walls (UNO) unless each face (E.F.) is specified. When each face is specified, splice the horizontal reinforcing of each curtain at different locations.

B. Dowel vertical reinforcing to the structure below and above with the same bar size and spacing, UNO. C. Terminate horizontal reinforcing at the ends of walls or openings

with a standard hook or corner type bars. Provide corner bars of the size and spacing as the horizontal reinforcing at intersections and corners. D. Build penetrations into the wall before pouring concrete. Have the penetrations reviewed by the EOR prior to installation unless detailed on

the plans. E. Provide drains at the base of retaining and basement walls.

F. Concrete walls not specially noted on the plans shall be reinforced

WALL VERTICAL HORIZONTAL TOP & BOT. THICKNESS REINFORCING REINFORCING REINFORCING HORZ. (Grade 60) (Gf 0.0012) (Gf 0.0020)#4 @ 12" o.c. (2) #5 #4 @ 18" o.c.

See plans, schedules, and details for other reinforcing.

1. SOILS REPORT: A. Foundations and retaining wall systems have been designed following the recommendations contained in a soils report prepared by:

RB&G Engineering, Inc.

Dated: September 2005.

Obtain a copy from the architect. This design assumes the recommendations contained in this report are being followed. B. If soil conditions vary from the report or if the report has been

2. Soil preparation under footings and slabs-on-grade shall be in accordance with the soils report.

amended, etc., the contractor shall immediately inform the EOR.

Foundations as shown on the drawings may require revision.

3. The general contractor is responsible for soil excavation, back fill and support of adjacent properties during earthwork.

4. All walls (except cantilevered retaining walls) shall be adequately brace against lateral movement prior to backfilling. Design and erection of bracing/shoring is the general contractors responsibility. Bracing shall remain in place until supporting structural elements are in place and have attained full strength. If walls are not braced, DO NOT backfill until suspended floor is in place and concrete has attained full strength.

#### SPECIAL INSPECTION AND TESTING

1. INSPECTIONS: Provide special inspection by an independent agency in accordance with IBC Chapter 17 and as outlined below:

Anchor bolts and concrete. Concrete: during pours, rebar placement, and taking of test specimens. Inspectors shall be ACI-II or ICC certified.

Reinforcing steel: in concrete. Soils: bearing materials and placement of structural fill.

2. TESTING: The owner will provide testing by qualified testing personnel for the following types of construction:

Concrete: strength, slump, air, and temperature. Soils: compaction.

3. THE CONTRACTOR SHALL:

A. Coordinate testing. DO NOT proceed with subsequent work until

inspections and testing has been approved. B. Copy inspection reports/testing results to the EOR and owner before C. Correct deficient work at no additional cost to the owner.

#### REINFORCING STEEL

1. CODES AND STANDARDS. Comply with:

a. CRSI "Manual of Standard Practice". b. ACI "Detailing Manual", ACI 315 (or SP-66).

A. New stock deformed rebar: ASTM A615, Grade 60, except as noted. a. Field bent dowels: ASTM A615, Grade 40 or ASTM A706, Grade 60, Low-Alloy Steel. Reduce spacing of grade 40 dowels by 1/3.

3. CONSTRUCTION:

A. Detail, bolster, and support all rebar. Tie bars securely with proper clearances before casting concrete. B. Use rebar free of loose flaky rust, scale, grease, oil, dirt, and other materials, which affect or impair bond.

C. Place rebar continuous in walls, beams, columns, slabs, footings, D. Minimum lap splices (Inches): (Minimum lap 24")

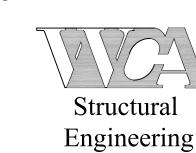
#3 #4 #5 #6 #7 #8 #9 #10 #11 Concrete: 24" 24" 24" 33" 53" 66" 80" 96" 113"

E. Make cold bends. DO NOT use heat. Bends in the fabricator's shop, UNO. DO NOT unbend or rebend a previously bent bar. F. Minimum concrete cover: (securely position and anchor rebar prior

Cast against and permanently exposed to earth .. 3" Exposed to earth or weather: #6 and larger ..... #5 and smaller ..... 1-1/2" NOT exposed to earth or weather: Slabs, walls and joist, #11 & smaller ...... 3/4" Beams, columns: Main reinforcing or ties .... 1-1/2" Slabs-On-Grade (SOG) ..... Center of slab, UNO

G. DO NOT weld reinforcing unless specifically noted. Use E-90XX electrodes and ASTM A706 reinforcing. Comply with AWS requirements.



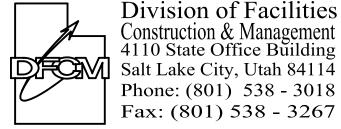


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# State of Utah Department of Administrative Services



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BUILDING NAME:

PROPERTY#10489 MAINTENANCE BLDG UTAH LAKE STATE PARK 4400 W. CENTER STREET PROVO, UTAH

PROJECT TITLE:

PROVO, UTAH UTAH LAKE STATE PARK MAINTENANCE BLDG

MARK DATE DESCRIPTION ISSUE TYPE: BID SET

ISSUE DATE: Aug. 21, 2006

DFCM PROJECT NO: 06032510 CAD PROJECT NO: 06082 CAD DWG FILE: DRAWN BY: TT CHK'D BY: CC COPYRIGHT: STATE OF UTAH

SHEET TITLE

GENERAL NOTES

SHEET NUMBER



SHEET 7 OF 9

